

Small Signal Product

Surface Mount Fast Switching Diode

FEATURES

- Fast switching speed
- Surface mount device type
- High conductance
- For general purpose switching applications
- Packing code with suffix "G" means green compound (halogen-free)

MECHANICAL DATA

- Case: SOT-23 small outline plastic package
- Terminal: Matte tin plated, lead free., solderable
- per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s
- Weight: 8 ± 0.5 mg
- BAS19 Marking Code: JP
- BAS20 Marking Code: JR



SOT-23





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LT.	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)					
PARAMETER	SYMBOL	BAS19	BAS20	UNIT	
Working Peak Reverse Voltage DC Blocking Voltage	V _{RM}	100	150	V	
Average Rectifier Output Current	Ι _Ο	200 m		mA	
Power Dissipation	P _D	2	50	mW	
Thermal Resistance Junction to Ambient Air	R _{θJA}	500		°C/W	
Operating and Storage Temperature Range	T _J , T _{STG}	-65 tc	o +150	°C	

Electrical Characteristics

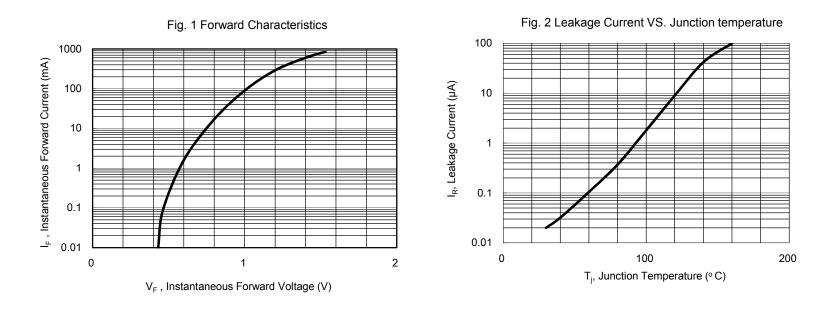
PARA	SYMBOL	MIN	MAX	UNIT		
Reverse Breakdown Voltage	BAS19 Ι _R = 100 μΑ	V	100	-	V	
Reverse breakdown voltage	BAS20 Ι _R = 100 μΑ	V _{R(BR)}	150		v	
Peak Reverse Current	BAS19 V _R = 100 V			0.1		
Feak Reverse Current	BAS20 V _R = 150 V	I _R	-	0.1	μA	
Ecoward Voltage	I _F = 100 mA	V _F		1.0	V	
Forward Voltage	I _F = 200 mA	۷F	-	1.25	v	
Junction Capacitance $V_R = 0 V$, f = 1.0 MHz		CJ	-	5	pF	
Reverse Recovery Time $I_F = I_R = 30 \text{ mA}$, $I_{RR} = 0.1 \times I_R$		t _{rr}	-	50.0	ns	



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RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)





TAIWAN SEMICONDUCTOR

Taiwan Semiconductor

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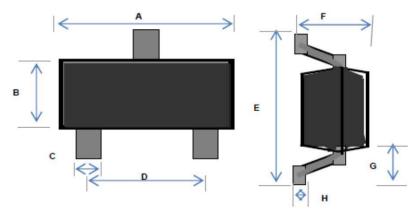
ORDERIN	ORDERING INFORMATION					
PART NO.	PART NO.	PACKING	PACKING CODE	DACKACE	DACKING	
	SUFFIX (Note 2)	CODE	SUFFIX	PACKAGE	PACKING	
BASxx	-xx	RF	G	SOT-23	3K / 7" Reel	
(Note 1)	-**	R5	9	301-23	10K / 13" Reel	

Note 1: "xx" is Device Code from "19" thru "20".

Note 2: Part No. Suffix "-xx " would be used for special requirement

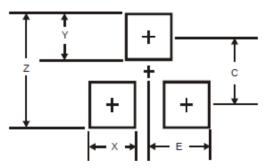
EXAMPLE					
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
BAS19 RF	BAS19		RF		Multiple manufacture source
BAS19 RFG	BAS19		RF	G	Multiple manufacture source Green compound
BAS19-B0 RFG	BAS19	-В0	RF	G	Defined manufacture source Green compound

PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
DIW.	Min	Мах	Min	Max
А	2.70	3.10	0.106	0.122
В	1.10	1.50	0.043	0.059
С	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022	2 REF
Н	0.10 REF		0.004	REF

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)	
DIW.	Тур.	Тур.	
Z	2.8	0.110	
Х	0.7	0.028	
Y	0.9	0.035	
С	1.9	0.075	
Е	1.0	0.039	



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